



# WATER TAP

WASHINGTON'S DRINKING WATER NEWSLETTER

## ***Rural Community Assistance Corporation***

# Loan fund can fill an emerging need for small systems

By George Schlender, Regional Environmental Manager - AK, WA, OR, ID, HI  
Rural Community Assistance Corporation (RCAC)

Small systems with 50 to 100 connections can have difficulty finding affordable financial options for water system improvements. While federal and state grant and loan programs can equalize the cost of improvements needed to meet Safe Drinking Water Act requirements, they may have special funding requirements other lenders don't have.

Rural Community Assistance Corporation (RCAC) is a nonprofit technical assistance provider. It works in 13 western states to provide access to resources, and to build local community capacity in dealing with water and wastewater issues and affordable housing.

RCAC staff work in rural areas with small water associations through technical assistance programs supported by grants from the U.S. Environmental Protection Agency or the U.S. Department of Agriculture-Rural Development (USDA-RD). RCAC is part of a national network under the Rural Community Assistance Partnership (RCAP).

### **Roza Heights Water Association**

In November 2004, the Office of Drinking Water (ODW) referred RCAC to the Roza Heights Water Association in Prosser. Roza Heights, with only 70 connections, had to install better controls, and replace its well house and much of its 50-year-old steel distribution network.



Roza Heights Reservoir, where a loan will improve the tank above and add new controls to improve pressure.

In working with Roza Heights, RCAC became aware of the Roza Heights board of director's desire to keep debt down and reduce costs. The board and the water users are farmers or farm employees. And, in this area, installing and using high tech irrigation systems is a natural part of farm operation.

The board felt their members and some of the local farm labor could install most of the pipe improvements and construct the pump house. However, with most federal and state programs it is difficult to get funding for self-help construction projects. Traditional federal grant and loan programs and most state programs require competitive bids for improvements, and prevailing wages for construction workers. Also, most federal funding programs add environmental review requirements that increase the cost of a small project. In some cases,

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# THE DIRECTOR'S COLUMN

BY DENISE ADDOTTA CLIFFORD



## Beating the standards: How low can they go?

Why would a water system choose to do better than the required standards? There could be several reasons: Better public health protection for its customers, who, after all, are its neighbors, friends,

and families. A degree of professional pride, or, maybe, a bit of healthy competition between water systems that jockey with each other for the best numbers. In addition, keeping contaminants at levels even lower than required can allow the levels to fluctuate a bit while still maintaining a wide margin of safety.

Washington's Treatment Optimization Program (TOP) is an ongoing effort to improve the performance of surface water treatment facilities. Begun in 2001, TOP focuses on particle removal and disinfection to maximize public health protection from microbial contaminants. TOP is designed to improve performance in surface water plants that use coagulant treatment prior to filtration.

Washington currently has 66 such plants, serving more than 2.2 million people. Optimizing turbidity removal at these facilities enhances public health protection from waterborne diseases caused by microbial pathogens, while helping these systems meet the new disinfection/disinfection by-product standards.

If you look at Graph 2 on page 18, you'll see a dramatic decline in the numbers of *Giardia* and *Cryptosporidium* cysts when you get down to the optimized turbidity values, which are well below the standards. If a system achieves better performance, it gets better cyst removal and ultimately better public health protection. Is it worth it? We think so.

Fully 25 plants succeeded in continuously meeting our turbidity optimization goals during 2005. These filtration plants, besides having significant design variations, also differ greatly with respect to size, age, type of ownership, source waters treated, and coagulants used. These findings suggest that operational and management factors such as commitment to achieving low filtered water turbidity, operator skill, and attentiveness to the treatment plant are key factors in determining performance outcomes.

Extensive water filtration research has demonstrated that lowering finished water turbidity to levels below the present regulatory requirements can help systems achieve greater than 2-log removal of *Giardia* and *Cryptosporidium*. In these plants, effective use of coagulation, sedimentation and filtration can help increase public health protection without large capital expenditures for plant redesign or replacement.

## Katrina water system damage will top \$2 billion

Reprinted from *On Tap* magazine with permission from West Virginia University.

According to a preliminary assessment from the American Water Works Association (AWWA), the costs to repair and replace public drinking water infrastructure damaged by Hurricane Katrina will surpass \$2.25 billion.

The AWWA report estimates costs to repair or replace assets, such as treatment plants, storage pumps, and related control facilities affected by storm surge, flooding and other factors. It also analyzes the impact of revenue shortfalls due to the

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A homemade sign informs residents of this neighborhood that their drinking water supply, once contaminated, is now safe to drink. Utilities in many Louisiana communities were severely damaged by Hurricane Katrina. Win Henderson / FEMA

Here to serve you!

## Office of Drinking Water's Eastern Regional Office

Our regional office in Spokane serves all 20 Eastern Washington counties. The goal of every employee is to provide the best customer service possible, and to work with water suppliers, consultants, local governments and consumers to achieve our mission: "To protect the health of the people of Washington State by assuring safe and reliable drinking water."

### Facts

- Eighteen employees work in the Spokane office, helping about 1,300 Group A water systems implement the state's drinking water program.
- Together, Eastern Regional Office staff has 140 years of experience working for the Office of Drinking Water.
- The eastern region encompasses over half our state – an area larger than five New England states put together.

Last year, Spokane regional office staff drove 60,000 miles visiting public water systems and local governments throughout Eastern Washington.



From left, Back row: Danielle Finley, Jeff Johnson, Mark Steward, Ed Parry. Middle: Tom Justus, Sarita Preuss, Anita Waterman, Scott Torpie, George Simon, Deana Taylor, Valori Adams. Front: Theresa Patrick, Pat McCaffery, Stacey Christiansen, Rhonda Leatherwood

### Transitions

The eastern region has some brand-new people filling several positions critical to our success, and a few long-time faces filling new roles.

- Dan Sander, regional office manager for more than 20 years, retired last fall after 30 years of state service. Dan's retirement started a series of changes within the regional office.
- Scott Torpie became regional manager. Scott has worked for the Office of Drinking Water since 1993; first as a regional engineer and then, most recently, as the assistant regional manager.
- Jeff Johnson became assistant regional manager. Jeff has been a regional engineer for the Office of Drinking Water since 1997.
- Dan Mathias was hired as our region's newest engineer. Dan previously worked more than 20 years as water system and water resources engineer for the City of Everett. He brings a valuable utility perspective to our work.

Another series of changes occurred when Pat McCaffery, regional coliform program manager, retired last year after 30 years of service.

- Mark Steward became the new regional coliform program manager. Mark has worked for the Office of Drinking Water since 2002 as our regional nitrate program manager and coliform program back-up.
- Sarita Preuss was hired as our new regional nitrate program manager and coliform program back-up. Sarita previously worked for the Benton-Franklin and Spokane Regional Health Districts.

Most recently, Diana Jacobson accepted the position of secretary senior for our regional office. Diana comes to DOH from the Department of Corrections, and fills the vacancy left by Sharon Howell earlier this year.

If you have suggestions on ways the folks at the Eastern Regional Office can improve service to you, please let us know. Spokane's main phone line is (509) 456-3115.



# DRINKING WATER WEEK

Because of their outstanding commitment to providing people in our state with safe and reliable drinking water, David Eaton from the Walla Walla County Health Department, Sharron Kimball and the Consolidated Irrigation District #19 in Spokane County, the City of Longview's Regional Water Treatment Plant, the Skamania Public Utility District, and Frank Piper with the City of Puyallup were recognized by the state Department of Health (DOH) during Drinking Water Week, May 7-13, 2006.

"It is a pleasure to honor these systems and individuals," said Denise Clifford, Office of Drinking Water Director. "They have gone to extraordinary lengths to protect the health of people in their communities, and they deserve our praise and our gratitude."



David Eaton receives his "Friend of Drinking Water" award from ODW Director, Denise A. Clifford.

## **David Eaton, Walla Walla County Health Department**

David Eaton, Environmental Health Director for Walla Walla County Health Department, has been named a "Friend of Drinking Water."

The state relies on local health departments to work directly with water systems during drinking water emergencies. Eaton has devoted his entire professional career to public health. This is the first time DOH has recognized a local health department employee for his role in providing healthy drinking water to our citizens.



Sharron Kimball receives congratulations for "Grace Under Pressure" from Irrigation District Manager Bob Ashcraft.

## **Sharron Kimball and Consolidated Irrigation District #19 in Spokane County**

Last fall, Bob Ashcraft, manager of Consolidated Irrigation District #19, got news that one of his water samples had come back positive for

*E. coli*. Whenever this happens, a water system must take additional samples, send them to the lab and wait for the results to learn whether there is a public health problem.

Ashcraft, unfortunately, had to travel out of state the next morning, before results were due. Anticipating the worst, he made arrangements for his staff to handle the crisis in his absence. Consolidated Irrigation District #19 and Sharron Kimball, its secretary, were recognized for "Grace Under Pressure" for the extraordinary job they did in managing a health emergency and providing over 4,000 people with the information they needed to stay safe.

## **Longview Water Treatment Plant**



Ric Saavedra (right), treatment plant superintendant, accepts Longview Treatment Plant's award for going "Above and Beyond" from ODW Deputy Director Jerrod Davis.

The award for "Going Above and Beyond" was presented to the City of Longview's Regional Water Treatment Plant for its role in DOH's performance-based training (PBT) program. The PBT program is designed to help water treatment plant operators learn how to fine-tune the operation of their plants so as to provide the highest quality water possible. In addition to learning how to operate its own plant at the highest possible level, the Longview plant hosted several training sessions and provided equipment to operators from other plants. In this role, they had to be willing to have their plant and operations inspected and scrutinized by trainers, DOH staff, and operators from other water treatment plants.

## Skamania Public Utility District



PUD Manager Bob Wittenberg (standing) congratulates employees for their role in earning the "Most Improved System" award. Also shown from left are commissioners Curt Esch, Chairman Clyde Leach and Dennis Gale

Faced with the possibility of exceeding the maximum amount of water allowed in its water right, Skamania County PUD commissioners declared a moratorium on new water connections and enacted aggressive conservation measures to reduce water use. The self-imposed moratorium has lasted nearly a year now, and the PUD has done an outstanding job trying to squeeze the most water out of its current capacity. Through leak detection surveys and other conservation measures, this hard-working water system has recovered approximately eight million gallons of water per year.

In addition to their conservation efforts, the PUD improved over 15,000 linear feet of transmission/distribution line in Carson. The PUD is now working to construct a 2.3 mile transmission line connecting Carson Water System to the Carson Industrial Site Water System. The interconnection allows the PUD to lift the moratorium in Carson. Residents

will also have better fire flow. The PUD is also making improvements to the treatment plant and continues to participate in watershed planning.

## Frank Piper, City of Puyallup



Frank Piper invited his wife, Pat, to join him as Secretary of Health, Mary Selecky (left), presents his "Lifetime Achievement" award.

Frank Piper, a City of Puyallup employee since 1969, received the "Lifetime Achievement" award. Piper has been a member of the city's water division since 1980. He has been the lead worker for 20 years.

As the first person called in a water emergency, Piper has been faced with a broken water main that flooded seven city blocks, has helped fire fighters get an adequate water supply to fight one of the city's largest fires, and has manually operated the water system during power outages to make sure the city's reservoirs remained full. Piper has also been recognized for helping low-income and elderly customers repair water leaks, on his own time and without compensation.

## Office of Drinking Water *Move Update*

Bad weather has forced the building contractor to postpone our move into the new Town Center 3 building until mid-to-late June. All headquarters staff and our Southwest Regional Office are involved in this upcoming move.

The Department of Health's Web site has excellent driving instructions if you need help finding our new building when the time comes. You can obtain these instructions by visiting <http://www.doh.wa.gov/DOHDirections/default.htm>

If the contractor keeps to the revised schedule, beginning June 26, you will be able reach our Southwest Regional Office at (360) 236-3030.

# FUNDING FOR WATER SYSTEMS

## Drinking Water State Revolving Fund

### *2006 Loan Applications Received*

The Office of Drinking Water (ODW) received 64 applications from 52 jurisdictions worth approximately \$49 million for low interest loans from the Drinking Water State Revolving Fund (DWSRF). About \$20 million is available to fund these projects.

ODW staff is reviewing the applications for eligibility. We will distribute the draft priority project list late this summer. We anticipate receiving the grant award in late winter or early spring, with contracts executed shortly thereafter. Because of the volume of applications received, only the highest priority projects will receive funding offers.

### 2007 Application Cycle

More funding information will be in the February 2007 Water Tap, a special edition focusing on the DWSRF and other funding sources.

## Water System Acquisition and Rehabilitation Program

### *Five projects receive 2005 grant funds*

The Water System Acquisition and Rehabilitation Program (WSARP) helps local governments maintain safe, reliable drinking water systems throughout the state. The 2005 Legislature committed \$2 million to WSARP. It was the second Legislative appropriation. In 2003, \$4 million funded 14 projects.

The funds help municipal water systems acquire and rehabilitate other public water systems that have water quality problems, or have deteriorated to the point that public health is an issue. The five projects receiving grant funding this year are:

<b>Chelan County PUD No 1</b>	\$500,000 to consolidate water systems in the Monitor community
<b>Kitsap PUD</b>	\$372,000 to acquire Frog Pond Water System and fund regional consolidation
<b>Lake Whatcom Water &amp; Sewer District</b>	\$181,103 to acquire Lake Whatcom Residential Treatment Center System
<b>Snohomish County PUD No 1</b>	\$500,000 to acquire Kayak Estates Water System
<b>Whitworth Water District No 2</b>	\$446,897 to acquire and rehabilitate North Glen Water

## For more information

The Office of Drinking Water, the Public Works Board and the Department of Community, Trade and Economic Development jointly manage the DWSRF and WSARP programs.

For more information, call Chris Gagnon at (360) 236-3095, e-mail [chris.gagnon@doh.wa.gov](mailto:chris.gagnon@doh.wa.gov) or visit the Web site at <http://www.doh.wa.gov/ehp/dw/default.htm>

# Funding Briefs

## *New requirements for archaeology and historic preservation*

Governor's Executive Order 05-05 requires the Department of Archaeology and Historic Preservation (DAHP) and Tribes to review all state capital projects and land acquisitions for impacts to historic and cultural resources.

The review is required on all state-funded capital construction projects unless they are categorically exempted by DAHP. Exempt projects are those that do not disturb the ground nor alter buildings or structures 50 or more years old. For more information, visit the Web site at <http://www.oahp.wa.gov/>

## *Infrastructure Assistance Coordinating Council*

The Infrastructure Assistance Coordinating Council (IACC) fall conference will be at the Wenatchee Convention Center, October 31 through November 2. IACC helps Washington communities identify and obtain the resources they need to develop, improve and maintain public works programs.

For information, visit IACC online at <http://www.infracfunding.wa.gov>

# Infrastructure Financing Studies

The 2005 Legislature commissioned two separate studies related to infrastructure financing, one by the Office of Financial Management (OFM, Executive Branch), and the other by the Joint Legislative Audit and Review Committee (JLARC, Legislative Branch).

OFM completed its study through Berk and Associates, and delivered it to the Legislature last session. It provides nine recommendations:

1. Govern and manage the programs as a system.
2. Strategic direction on state investment goals and priorities is needed.
3. Strategic plans and planning processes are needed for each program.
4. Create an Infrastructure Policy Forum to coordinate across agencies and programs.
5. Recognize and effectively manage the infrastructure programs as banks.
6. Invest in financial management systems that increase efficiency and reduce duplicated efforts.
7. Invest in modern enterprise information systems to support integrated program decision-making and reporting.
8. Use information technology to create a single port of electronic entry into the state's system for improved information processing, collection and reporting.
9. Group infrastructure programs within the Department of Community, Trade and Economic Development into one division within the agency.

OFM is moving forward with the recommendations, as a starting point to creating a "system" for financing infrastructure in Washington. This will be done using a Strategic Management Framework aligning strategy, systems and structures.

OFM will recommend ways to enable the state's programs to work together, across agencies, as an interactive system, with alignment between policy, management and performance outcomes.

JLARC is scheduled to deliver its study to the Legislature in December 2006.



# Metering helps identify problems and cuts peak usage by 50 percent

In 2003 the City of Aberdeen was recognized during Drinking Water Week for water system improvements that included repairing and upgrading the city's leaking reservoirs, construction of a state-of-the-art membrane water filtration plant, and electronic meter reading at all households.

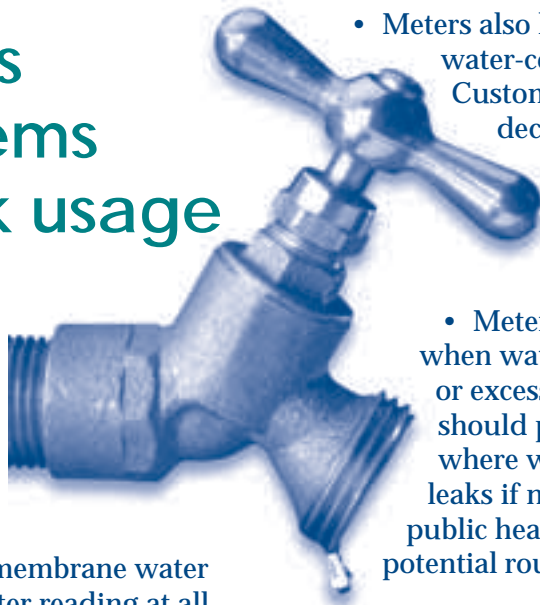
Water meters were installed on all 6,300 households on the city's water system. According to Aberdeen Public Works Director Larry Bledsoe, before the meters were installed, the city's average daily water use was three times the national average. On peak days, the demand was six million gallons. After the meters were installed, peak demand dropped to three million to 3.5 million gallons.

Bledsoe says with the installation of the meters, the city finally had the tools to study water uses and losses. Lining the reservoir created a savings of 700,000 gallons per day, and when the waste water treatment plant began recycling its own water it saved another 300,000 gallons per day.

Installing service meters also helped the city find major service line leaks – over 100,000 gallons per day! According to Bledsoe, one service line had 20 gallons per minute running through a customer's yard – in essence a small creek of drinking water.

## Reasons to install service and source meters

- Drinking water is an increasingly valuable and limited resource. It must be carefully managed to meet competing demands.
- Meters are the only credible way of determining water system leakage.
- Meters help utilities understand their water system better by knowing where water is going.



- Meters also help utilities identify customer water-consumption patterns. Customers can then make informed decisions on how they use this precious resource and utilities can plan appropriate water use efficiency programs for their customers.

- Meters can help operators discover when water is being lost. An increased or excessive amount of lost water should prompt action to find out where water is going and repair water leaks if necessary. This helps protect public health, because leaking pipes are a potential route for contamination.

- To measure any success in the efficient use of water, or identify problem areas, you must first be able to measure, collect and evaluate your water use data through the use of meters.
- In the Pacific Northwest region, even with all its snow and rain, water may not be available where and when you need it. When peak summer demands put a large strain on facility equipment and our water resources, it is important to know where your water is going. Meters give you the tools you need to do this.
- The long-term benefit of installing meters and repairing the system to reduce leaks is a safer and more reliable water system.

***It's Worth  
Saving***   
***Drinking Water***



# Coliform monitoring is required!

If you are a certified operator, a volunteer, an employee, or an owner of a Group A water system, you are required to test for coliform bacteria. Your sampling schedule is at the bottom of your Water Facilities Inventory (WFI) form.

Recently, a water district was fined and its certified operator's license was suspended because the district falsified the locations where coliform samples were collected. For years, coliform samples had been collected from the well instead of the distribution system, but actual customer addresses were put on the coliform lab report form.

## Why is coliform sampling so important?

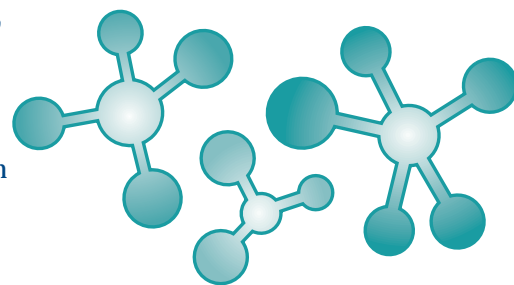
Coliform bacteria are an indicator of the quality of water being provided to water users. Their presence indicates the possibility that harmful organisms have been able to enter a system's drinking water. If coliform bacteria are present, you should be troubleshooting your system to find out why – and correct the problem.

The aim of sampling is not just to get satisfactory samples. You have the health of your customers to protect. Providing coliform-free (contaminant-free) water is your goal. If you are ever pressured to ignore or disregard the requirements, remember what happened to the water district and their certified operator.



## Remember

- Sample according to your Coliform Monitoring Plan. If you don't have a plan, contact your Office of Drinking Water (ODW) regional office for help preparing one.
- Routine samples are not to be collected from a source. They must be from the distribution system. (Of course, investigative samples and one of the repeat samples may be collected from the source.)
- Rotate routine sample sites so representative areas of the water system are tested during the year.
- Complete the coliform lab report form.
  - Date and time the sample is collected.
  - Water system name and ID number.
  - Contact person and phone numbers – day, evening, cell and fax.
  - Name of the person who collected the sample and the water system management company, if applicable.
  - The address where the sample was collected. Don't use a generic location such as "outside faucet" or "sink."
  - Type of sample – for regulatory purposes routine or repeat samples. If it is a repeat sample, include the collection date and lab number of the unsatisfactory routine sample.
  - Correct return mailing address.



- If you get an unsatisfactory routine sample, collect repeat samples. Regulations require you to collect repeat samples within 24-hours after the lab tells you of an unsatisfactory sample. If you can't meet this deadline, contact your ODW regional office.

## Call the Office of Drinking Water

If you have a fecal or *E. coli* positive routine sample or an acute maximum contaminant level violation, contact your ODW regional office immediately. If you need to reach us after 5 p.m., weekends or holidays, call (877) 481-4901.

## Resources

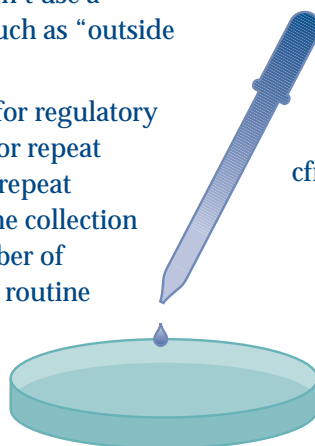
To find out how to collect a sample or where to collect a sample, or if you need general assistance, contact your ODW regional office.

Eastern Region (509) 456-3115

Northwest Region (253) 395-6750

Southwest Region (360) 664-0768  
after June 26 (360) 236-3030

We also have helpful publications online at <http://www4.doh.wa.gov/dw/publications/publications.cfm>





# Especially for Small Systems

## Third Party Program enlists Qualified Sanitary Surveyors

If you operate a small groundwater system you should get familiar with the term, "Qualified Sanitary Surveyor." That's Q-S-S, for short. A QSS is a person who will be conducting sanitary surveys and providing technical assistance related to water quality and treatment for small water systems.

A routine sanitary survey of a Group A water system is a periodic field visit to evaluate the operation and management of the system. Sanitary surveys are an important part of the Office of Drinking Water's (ODW) effort to ensure drinking water is safe and reliable.

ODW's goal is to conduct sanitary surveys of all Group A systems at least once every five years. That means we must survey about 800 water systems each year.

ODW doesn't have the resources to do that many surveys, so it established the Third Party

Program to qualify third party designees to help out. A QSS may be an employee at a local health jurisdiction (LHJ) or an independent contractor. In either case, to be a QSS a person must meet minimum qualifications and attend required training specifically designed for the Third Party Program.

### *Surveys of small, non-complex systems*

In general, QSS involvement is appropriate for surveys of small community or non-community systems with all of the following characteristics:

- Fewer than 100 connections.
- Using groundwater sources not under the influence of surface water.
- Not using complex treatment.

A QSS may provide direct technical assistance with coliform exceedance problems, hypochlorination treatment systems, or other activities to improve compliance with drinking water rules and promote sound operations and maintenance.

ODW will remain responsible for follow-up activities when a QSS-conducted sanitary survey finds deficiencies that pose a high public health risk.

### *A strong positive response from local health jurisdictions*

ODW is encouraged by the overwhelming response from LHJ staff ready to participate in the program and build stronger partnerships. At present, 30 of 34 LHJs have entered into a joint plan of operation with ODW. Such an agreement gives the LHJ delegated responsibility for serving as the primary contractor to provide Third Party QSS services.

In counties where LHJs are not participating in the program, ODW will use independent contractors to conduct sanitary surveys and provide direct technical assistance.

### **For more information**

Call Sara Brallier at (360) 236-3180 or e-mail [sara.brallier@doh.wa.gov](mailto:sara.brallier@doh.wa.gov)

### **Distance Education Reimbursement**

The Office of Drinking Water is funding a program to reimburse 100 certified operators of small water systems in Washington for successful completion of approved distance education.

Until Dec.31, 2006, certified operators of systems serving less than 3,300 people may receive up to \$200 in reimbursement. For information, call (800) 562-0858 or (253) 288-3369, ext. 2.

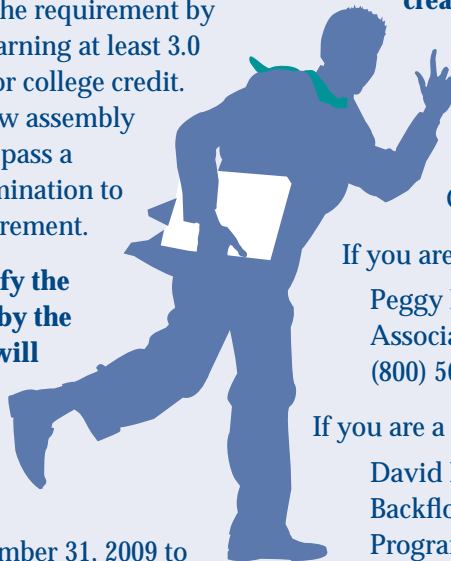
## Professional Growth Deadline Approaching: 12/31/06

All water works operators and backflow assembly testers certified before January 1, 2004, must meet the Department of Health's professional growth requirement by December 31, 2006.

Most water works operators meet the requirement by completing relevant training and earning at least 3.0 continuing education units (CEU) or college credit. Training is not required for backflow assembly testers (BATs). Instead, BATs must pass a hands-on professional growth examination to meet the professional growth requirement.

**Remember – if you DO NOT satisfy the professional growth requirement by the December 31, 2006 deadline, you will not be eligible to renew your certification for 2007.**

Operators and BATs first certified between January 1, 2004 and December 31, 2006 have until December 31, 2009 to meet the professional growth requirement.



### Questions?

Water works operators may view their professional growth transcript and status online at <http://www.wetrc.org/>. Just click on “*Water Works Operators*” and “*View Professional Growth Report*,” and then follow the instructions to create your personal username and password. **Do not add any zeros to the front of your certification number when creating your password or the system will be unable to identify you.**

If you have other questions about your professional growth requirement, contact Certification Services staff at Green River Community College.

If you are a water works operator, call:

Peggy Barton  
Associate Director, Certification Services  
(800) 562-0858 or (253) 288-3369, ext. 2

If you are a backflow assembly tester, call:

David Kingsley  
Backflow Assembly Tester Certification  
Program Manager  
(800) 562-0858 or (253) 288-3369, ext. 3

## Rural Community Assistance *(Continued from Page 1)*

prevailing wages and environmental requirements can add 50 percent, or more, to the cost of a project.

Rosa Heights Water Association hired an engineer to review the alternatives for their system improvements and estimate the costs.

### RCAC to the rescue

Where applicable, self help with guidance from the design engineer is possible with RCAC loan funds and can reduce the cost of projects for small systems. Environmental loans used for self-help projects must have terms to meet the needs of small communities. However, with the low cost of self-help labor in construction, a 7- to 10-year amortization schedule could be viable.

Roza Heights applied to RCAC for a \$99,000 loan to be repaid with water revenues over 10 years. In reviewing the loan application, RCAC staff determined Rosa Heights could get a better interest rate through the RCAP network from Community Resources Group (CRG).

CRG had a special USDA-RD grant of \$497,000 – plus a \$248,000 match – to loan for small infrastructure projects and engineering. Using this fund, the interest on Roza Heights' loan dropped from 7 percent to 5.6 percent.

As Roza Heights and others repay their CRG loans, additional funding will be available to the RCAP network, which includes RCAC and Washington state. CRG will be applying for additional capital from USDA-RD to increase its ability to help rural communities with this unique loan product.

When self-help labor and water-system construction knowledge exist in the community, RCAC and RCAP loans could be a great way to reduce debt and reliance on grant programs for water system improvements.

The RCAC loan fund doesn't reduce required state controls for engineering oversight on construction. But, the savings on costly environmental reports and public works construction bids could be an advantage for small systems.

For more information, please call (509) 921-9415.

# Training and Education Calendar: June - December 2006

<u>Date</u>	<u>Topics</u>	<u>Location</u>	<u>Contact</u>	<u>Phone #</u>	<u>Cost/CEU</u>
June 6	Metering: Source & Residential	Chehalis	ERWOW	1-800-272-5981	\$50/0.7
June 6-7	Emergency Response Planning 2006	Moses Lake	WETRC	1-800-562-0858	\$155/2.1
June 7	Cross Connection Control & Backflow Basics	Wenatchee	ERWOW	1-800-272-5981	\$50/0.7*
June 8	Confined Space Entry	Richland	ERWOW	1-800-272-5981	\$50/\$70/\$85/0.7*
June 8	Trenching/Shoring/Competent person	Tacoma	ERWOW	1-800-272-5981	\$50/\$70/\$85/0.5*
June 9	Basic Electrical	Moses Lake	ERWOW	1-800-272-5981	\$50/\$70/\$85/0.5*
June 9	Confined Space Entry	Spokane	WETRC	1-800-562-0858	\$140/0.7
June 12-15	BAT Certification Class	Auburn	WETRC	1-800-562-0858	\$525/3.0
June 12-15	BAT Certification Class	Spokane	WETRC	1-800-562-0858	\$525/3.0
June 13	Advanced Wellhead/Aquifer Protection	Olympia	ERWOW	1-800-272-5981	\$50/0.7*
June 13-15	Cross-Connection Control Water Use Surveys	Elma	WETRC	1-800-562-0858	\$295/2.0
June 14	Advanced Wellhead/Aquifer Protection	Bremerton	ERWOW	1-800-272-5981	\$50/0.7*
June 15	Emergency Repairs	Mt. Vernon	ERWOW	1-800-272-5981	\$50/0.7*
June 16	BAT Certification Exam	Spokane	WETRC	1-800-562-0858	\$180/NA
June 16	BAT Certification Exam	Auburn	WETRC	1-800-562-0858	\$180/NA
June 16-20	BAT Refresher Course	Auburn	WETRC	1-800-562-0858	\$205/1.5
June 20	Emergency Repairs	Omak	ERWOW	1-800-272-5981	\$50/0.7*
June 20-22	7th Annual West WA Reg Short School-Trade Show	Edmonds	PNCWA-AWWA	1-425-450-6360	\$75/\$150/2.0†
June 21	BAT Professional Growth Exam	Auburn	WETRC	1-800-562-0858	\$105/NA
June 21	Emergency Repairs	Yakima	ERWOW	1-800-272-5981	\$50/0.7*
June 21-22	BAT Refresher Course	Spokane	WETRC	1-800-562-0858	\$205/1.5
June 21-23	Water & Wastewater Disinfection	Vancouver	WETRC	1-800-562-0858	\$275/2.1
June 22	Emergency Repairs	Stevenson	ERWOW	1-800-272-5981	\$50/0.7*
June 23	BAT Professional Growth Exam	Spokane	WETRC	1-800-562-0858	\$105/NA
June 23	BAT Professional Growth Exam	Auburn	WETRC	1-800-562-0858	\$105/NA
June 26-27	BAT Refresher Course	Auburn	WETRC	1-800-562-0858	\$205/1.5
June 27	Metering: Source & Residential	Bellingham	ERWOW	1-800-272-5981	\$50/0.7*
June 27-29	Water & Wastewater Disinfection	Spokane	WETRC	1-800-562-0858	\$275/2.1
June 28	BAT Professional Growth Exam	Auburn	WETRC	1-800-562-0858	\$105/NA
June 28	Metering: Source & Residential	Bremerton	ERWOW	1-800-272-5981	\$50/0.7*
June 29	Metering: Source & Residential	Marysville	ERWOW	1-800-272-5981	\$50/0.7*
June 29-30	BAT Refresher Course	Auburn	WETRC	1-800-562-0858	\$205/1.5
June 30	Trenching/Shoring/Competent person	Vancouver	ERWOW	1-800-272-5981	\$50/\$70/\$85/0.5*
July 1	BAT Professional Growth Exam	Auburn	WETRC	1-800-562-0858	\$110/0.7*
July 6-7	Advanced Backflow & Cross-Connection Control	Liberty Lake	ERWOW	1-800-272-5981	\$50/1.4*
July 6-7	Competent Person Cave-In Protection	Mt. Vernon	WETRC	1-800-562-0858	\$210/1.4
July 10	Trenching/Shoring/Competent Person	Wenatchee	ERWOW	1-800-272-5981	\$50/\$70/\$85/0.5*
July 10	Emergency Repairs	Moses Lake	ERWOW	1-800-272-5981	\$50/0.7*
July 11	Emergency Repairs	Pullman	ERWOW	1-800-272-5981	\$50/0.7*
July 12	Office of Drinking Water Seminar	Spokane	Preferred Planners	1-866-417-7776	\$30/0.3/0.6
July 12	Emergency Repairs	Walla Walla	ERWOW	1-800-272-5981	\$50/0.7*
July 12-13	BAT Refresher Course	Spokane	WETRC	1-800-562-0858	\$205/1.5

\*Operators of Group A small water systems serving 3,300 people or less will be charged a \$50 registration fee for these classes.

† These classes are free for operators of Group A small water systems serving 3,300 people or less.

‡ Some scholarships will be available. For information, visit the Web site at <http://www.myawwa.com>



# Training and Education Calendar: June - December 2006

<u>Date</u>	<u>Topics</u>	<u>Location</u>	<u>Contact</u>	<u>Phone #</u>	<u>Cost/CEU</u>
July 13	Office of Drinking Water Seminar	Wenatchee	Preferred Planners	1-866-417-7776	\$30/0.3/0.6
July 13	Confined Space Entry	Satsop	ERWOW	1-800-272-5981	\$50/\$70/\$85/0.7*
July 14	BAT Professional Growth Exam	Spokane	WETRC	1-800-562-0858	\$110/NA
July 14	Equipment Expo	Satsop	ERWOW	1-800-272-5981	TBA
July 18	Office of Drinking Water Seminar	Tacoma	Preferred Planners	1-866-417-7776	\$30/0.3/0.6
July 18	Advanced Wellhead/Aquifer Protection	Liberty Lake	ERWOW	1-800-272-5981	\$50/1.4*
July 19	Advanced Wellhead/Aquifer Protection	Yakima	ERWOW	1-800-272-5981	\$50/1.4*
July 20	Office of Drinking Water Seminar	Mt. Vernon	Preferred Planners	1-866-417-7776	\$30/0.3/0.6
July 20	Advanced Wellhead/Aquifer Protection	Richland	ERWOW	1-800-272-5981	\$50/1.4*
July 20	Automatic Control Valves	Port Angeles	ERWOW	1-800-272-5981	Free/0.7
July 21	Metering: Source & Residential	Moses Lake	ERWOW	1-800-272-5981	\$50/0.7*
July 25	Advanced Wellhead/Aquifer Protection	Port Angeles	ERWOW	1-800-272-5981	\$50/1.4*
July 26	Advanced Wellhead/Aquifer Protection	Tacoma	ERWOW	1-800-272-5981	\$50/1.4*
July 26-27	BAT Refresher Course	Spokane	WETRC	1-800-562-0858	\$205/1.5
July 27	Office of Drinking Water Seminar	Vancouver	Preferred Planners	1-866-417-7776	\$30/0.3/0.6
July 27	Advanced Wellhead/Aquifer Protection	Kelso	ERWOW	1-800-272-5981	\$50/1.4*
July 28	BAT Professional Growth Exam	Spokane	WETRC	1-800-562-0858	\$110/NA
Aug 1	Cross-Connection Control & Backflow Basics	Yakima	ERWOW	1-800-272-5981	\$50/0.7*
Aug 3	Water Audits & Leak Detection	Olympia	ERWOW	1-800-272-5981	Free/TBA
Aug 8	Managing a Public Water System	Omak	ERWOW	1-800-272-5981	\$50/0.7*
Aug 8	Water Audits & Leak Detection	Bellingham	ERWOW	1-800-272-5981	Free/TBA
Aug 9	Managing a Public Water System	Moses Lake	ERWOW	1-800-272-5981	\$50/0.7*
Aug 10	Confined Space Entry	Everett	WETRC	1-800-562-0858	\$50/0.7*
Aug 10	Managing a Public Water System	Walla Walla	ERWOW	1-800-272-5981	\$50/0.7*
Aug 10	Water Audits & Leak Detection	Port Angeles	ERWOW	1-800-272-5981	Free/TBA
Aug 11	Assuring a Reliable and Efficient Water Supply	Richland	ERWOW	1-800-272-5981	\$50/0.7*
Aug 11	Basic Electrical	Bremerton	ERWOW	1-800-272-5981	\$50/\$70/\$85/0.7*
Aug 11	BAT Professional Growth Exam	Spokane	WETRC	1-800-562-0858	\$110/NA
Aug 15	Confined Space Entry	Shelton	ERWOW	1-800-272-5981	\$50/\$70/\$85/0.7*
Aug 16	Metering: Source & Residential	Port Angeles	ERWOW	1-800-272-5981	\$50/0.7*
Aug 16-18	Water Works Basics	Spokane	WETRC	1-800-562-0858	\$275/2.1
Aug 17	Metering: Source & Residential	Shelton	ERWOW	1-800-272-5981	\$50/0.7*
Aug 18	Metering: Source & Residential	Vancouver	ERWOW	1-800-272-5981	\$50/0.7*
Aug 22	Assuring a Reliable and Efficient Water Supply	Bremerton	ERWOW	1-800-272-5981	\$50/0.7*
Aug 22	Water Audits & Leak Detection	Yakima	ERWOW	1-800-272-5981	Free/TBA
Aug 23	Assuring a Reliable and Efficient Water Supply	Tacoma	ERWOW	1-800-272-5981	\$50/0.7*
Aug 23	Water Audits & Leak Detection	Wenatchee	ERWOW	1-800-272-5981	Free/TBA
Aug 23-24	BAT Refresher Course	Spokane	WETRC	1-800-562-0858	\$205/1.5
Aug 24	Assuring a Reliable and Efficient Water Supply	Shelton	ERWOW	1-800-272-5981	\$50/0.7*
Aug 24	Water Audits & Leak Detection	Omak	ERWOW	1-800-272-5981	Free/TBA
Aug 25	BAT Professional Growth Exam	Spokane	WETRC	1-800-562-0858	\$110/NA
Aug 29	Assuring a Reliable and Efficient Water Supply	Wenatchee	ERWOW	1-800-272-5981	\$50/0.7*

\*Operators of Group A small water systems serving 3,300 people or less will be charged a \$50 registration fee for these classes.

† These classes are free for operators of Group A small water systems serving 3,300 people or less.

# Training and Education Calendar: June - December 2006

<u>Date</u>	<u>Topics</u>	<u>Location</u>	<u>Contact</u>	<u>Phone #</u>	<u>Cost/CEU</u>
Aug 30	Assuring a Reliable and Efficient Water Supply	Moses Lake	ERWOW	1-800-272-5981	\$50/0.7*
Aug 31	Assuring a Reliable and Efficient Water Supply	Liberty Lake	ERWOW	1-800-272-5981	\$50/0.7*
Sept 5-7	Water Distribution Certification Exam Review	Everett	WETRC	1-800-562-0858	\$50/\$275/2.1*
Sept 6-8	Cross-Connection Control Basics and Exam Review	Spokane	WETRC	1-800-562-0858	\$275/2.1
Sept 12	BTO/WTPO OIT and Level 1 Cert Exam Review	Auburn	WETRC	1-800-562-0858	\$50/0.7*
Sept 12-14	Water Distribution Certification Exam Review	Spokane	WETRC	1-800-562-0858	\$50/\$275/2.1*
Sept 13	Water Distribution Specialist Cert Exam Review	Bremerton	WETRC	1-800-562-0858	\$50/0.7*
Sept 14	BTO/WTPO OIT and Level 1 Cert Exam Review	Richland	WETRC	1-800-562-0858	\$50/0.7*
Sept 15	Water Distribution Specialist Cert Exam Review	Wenatchee	WETRC	1-800-562-0858	\$50/0.7*
Sept 19-21	Water Distribution Certification Exam Review	Auburn	WETRC	1-800-562-0858	\$50/\$275/2.1*
Sept 21-22	Fire Hydrants: Installation, Testing, Op & Repair	Tacoma	WETRC	1-800-562-0858	\$245/1.4
Sept 26-28	Cross-Connection Control Water Use Surveys	Auburn	WETRC	1-800-562-0858	\$295/2.0
Oct 3-5	Pump Operation & Maintenance	Shelton	WETRC	1-800-562-0858	\$50/\$275/2.1*
Oct 5-6	Competent Person Cave in Protection	Auburn	WETRC	1-800-562-0858	\$50/\$210/1.4*
Oct 5-6	Fire Hydrants: Installation, Testing, Op & Repair	Richland	WETRC	1-800-562-0858	\$50/\$245/1.4*
Oct 9-11	Basic Electrical	Mt. Vernon	WETRC	1-800-562-0858	\$50/\$275/2.1*
Oct 9-11	Water & Wastewater Disinfection	Tacoma	WETRC	1-800-562-0858	\$50/\$275/2.1*
Oct 10-12	Cross-Connection Control Water Use Surveys	Elma	WETRC	1-800-562-0858	\$50/\$295/2.1*
Oct 24-25	Adv Cross-Conn Cntrl: Risk Assess/Hazard Analysis	Spokane	WETRC	1-800-562-0858	\$50/\$175/1.4*
Oct 26	Backflow Incident Investigation & Response	Spokane	WETRC	1-800-562-0858	\$115/0.7
Nov 1-2	Adv Cross-Conn Cntrl: Risk Assess/Hazard Analysis	Everett	WETRC	1-800-562-0858	\$50/\$175/1.4*
Nov 3	Backflow Incident Investigation & Response	Everett	WETRC	1-800-562-0858	\$115/0.7
Nov 7-9	Pump Operation & Maintenance	Richland	WETRC	1-800-562-0858	\$50/\$275/2.1*
Nov 9	Confined Space Entry	Tacoma	WETRC	1-800-562-0858	\$50/\$140/0.7*
Dec 4-6	Water Works Basics	Mt. Vernon	WETRC	1-800-562-0858	\$50/\$275/2.1*
Dec 5-7	Pump Operation & Maintenance	Tacoma	WETRC	1-800-562-0858	\$50/\$275/2.1
Dec 6-7	Adv Cross-Conn Cntrl: Risk Assess/Hazard Analysis	Auburn	WETRC	1-800-562-0858	\$50/\$175/1.4
Dec 8	Backflow Incident Investigation & Response	Auburn	WETRC	1-800-562-0858	\$115/0.7
Dec 11-13	Basic Electrical	Auburn	WETRC	1-800-562-0858	\$50/\$275/2.1*

\*Operators of Group A small water systems serving 3,300 people or less will be charged a \$50 registration fee for these classes.

† These classes are free for operators of Group A small water systems serving 3,300 people or less.

For information about distance learning activities, call WETRC at (800) 562-0858

## Additional Training Links:

AWWA King County Subsection Web site—<http://www.kcawwa.org/>

ERWOW Web site—<http://www.erwow.org/>

WETRC Web site—<http://www.wetrc.org/>

AWWA Pacific Northwest Section Web site—<http://www.pnws-awwa.org/>

EPA electronic workshops Web site—<http://www.epa.gov/safewater/dwa/electronic.html>

*For the complete Training Calendar visit the Drinking Water Homepage and click on Training - <http://www.doh.wa.gov/ehp/dw>*

NOTE: Links to external resources are provided as a public service, and do not imply endorsement by the Washington State Department of Health.

# ▪ New & Revised Publications ▪

**Responding to pressure-loss events** (331-338). New! 2-page fact sheet explains causes for pressure loss, prevention, what to do if a pressure loss event occurs, and indications of backflow.

**How enforcement affects operating permits** (331-339).

New! 2-page fact sheet explaining ODW enforcement actions and how a bilateral compliance agreement can help a system avoid getting a red operating permit.

**Wellhead Protection Requirements** (331-106). Revised. 6-page booklet explaining how to create a wellhead protection plan.

**Relevancy of Training for Certified Water Works Operators** (331-186). Revised. 2-page fact sheet describing types of training that are and are not relevant for meeting professional growth requirements for operator certification.



**Backflow prevention assemblies approved for installation in Washington state** (331-137). Revised. 108-page list identifies the makes and models of DOH-approved backflow assemblies. Based on the Approved Backflow Assemblies List published by the University of Southern California Foundation for Cross-Connection Control and Hydraulic Research.

**Consumer Confidence Reports** (331-209).

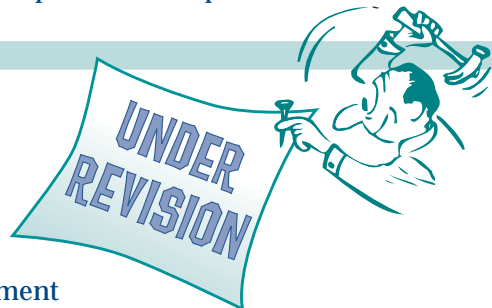
Revised. 2-page fact sheet on Consumer Confidence Reports, the yearly reports on drinking water quality and safety that water systems produce for their customers.

**Fact Sheet: Start-up Procedures for Seasonal Non-Community Water Systems** (331-310). Revised. 2-page fact sheet designed to help seasonal non-community water systems prepare to open.

For copies of Office of Drinking Water publications, call (800) 521-0323 or visit the Web site at <http://www4.doh.wa.gov/dw/publications/publications.cfm>

*Comments? Suggestions?*

## The Water System Design Manual



For the first time in five years, staff at Office of Drinking Water (ODW) is revising the Water System Design Manual. This 300-page guidance document serves as a start-to-finish reference for water system designers, including discussion of construction documents, plan approval and water sources. ODW expects to finalize revisions by mid-2007.

Water system staff and engineers use this publication when designing water system improvements such as new reservoirs, booster pump stations, and treatment facilities. It also has been used to assess the service capacities of water systems. This information is important to water system planning activities and for water rights issues.

If you would like to offer suggestions related to water system design considerations over the next year as ODW staff revises the manual, you are welcome to submit them at any time to:

Sam Perry (253) 395-6755  
[sam.perry@doh.wa.gov](mailto:sam.perry@doh.wa.gov)

Your ODW regional office:

Eastern Region	(509) 456-3115
Northwest Region	(253) 395-6750
Southwest Region	(360) 664-0768
after June 26 (360) 236-3030	

The Water System Design Manual is online at <http://www.doh.wa.gov/ehp/dw/publications/design.htm>

Interested people will be offered a more focused opportunity to offer suggestions later this year, when drafts of the revisions are ready for public review.

# Drinking Water Seminars

Washington State Drinking Water Seminars will provide you with up-to-the-minute information to help you do your job – provide safe and reliable drinking water.

Dates and locations for 2006 seminars are:

July 12, Red Lion at the Park, Spokane

July 13, Wenatchee Convention Center

July 18, Tacoma Convention Center

July 20, CottonTree Inn, Mt Vernon

July 27, Hilton Convention Center, Vancouver

You can check in from 8 to 8:30 a.m. The seminars begin at 8:30 a.m. and end at 4:30 p.m. Lunch is provided.

The general morning session includes:

- Emerging issues and upcoming regulatory requirements
- Grayland: The importance of doing the “Right Thing”
- Drinking water data on the Internet: An overview of the SENTRY Internet and Source Water Assessment Web sites
- Health Advisory Review: What we have learned

Breakout sessions will be presented in the afternoon.

## Track 1

1. New directions in water system planning
2. Emerging water quality issues
3. Media training

## Track 2

1. Building an effective emergency response program
2. Water use efficiency
3. Health advisory messages

This course meets Washington State Department of Health’s relevancy criteria for water works operator professional growth and has been approved for 0.6 CEU. Participants can receive 0.3 CEU for half-day attendance.

## Registration

You should have received a training announcement in the mail that includes a registration form. If you have misplaced it, please download the announcement from our Web site at <http://www.doh.wa.gov/ehp/dw/>

If you have questions about registration, call toll-free (866) 417-7776 or e-mail [drinkingwater@covad.net](mailto:drinkingwater@covad.net). A reduced registration fee of \$30 is made possible with partial funding from the Office of Drinking Water.

## For More Information

If you need more information about the 2006 Drinking Water Seminars, please call the Office of Drinking Water’s Training and Outreach Section at (360) 236-3167.

## Revised Water Use Efficiency Rule is now online

In July 2005 the Office of Drinking Water (ODW) mailed an informal draft of the new Water Use Efficiency rule to water systems and interested parties. ODW staff worked with key stakeholder groups to review the comments and revised the rule to address them.

ODW is now taking the next required steps toward adoption of the rule.

1. We posted the rule, revised to address public comments, to the Web site.
2. This summer ODW will educate interested parties about the rule and work with DOH management to get the rule ready for formal review.
3. In July we will mail the proposed rule for formal review and comments to support public hearings in August.

## For more information

The revised rule, the economic analysis required by state law, a comment and response matrix, and six fact sheets are online at [http://www.doh.wa.gov/ehp/dw/municipal\\_water/municipal\\_water\\_law.htm](http://www.doh.wa.gov/ehp/dw/municipal_water/municipal_water_law.htm)

Call Theresa Phillips at (360) 236-3147 or e-mail [theresa.phillips@doh.wa.gov](mailto:theresa.phillips@doh.wa.gov)





# Grays Harbor Water District #1 Update: Good News

Things are looking a lot like success in the Grayland area. The Grays Harbor Water District #1, in trouble after the disclosure last summer that it falsified the location of coliform sampling, has worked hard to improve its operations and accountability.

As we reported in March, the system was fined and its certified water works operator lost his certification for six months. Here's an update on the situation:

All three of the system's commissioners are gone. One was voted out of office in last year's election, and the other two resigned before the end of their terms. One newly-elected commissioner has been joined by two appointees who are willing to invest the time to help the district improve its management and operations. Other volunteers, many from the local volunteer fire department, are working to improve district records and operations.

The \$30,000 fine levied by the Office of Drinking Water (ODW) has been appealed.

The operator has completed a set of stipulated actions that allow the suspension of his certification to be reduced from one year to six months. In mid-June, he should be a Water Distribution Manager 2 again. Some operators saw his presentation on how this situation occurred at the Water/Wastewater Operations Workshop in Vancouver in March. The presentation was among the stipulated conditions he had to fulfill.

The Grays Harbor Sheriff's Department has been investigating criminal allegations against the district, as requested by ODW Director Denise Clifford.

The water district hired additional help – a local, retired, but still certified, operator to supervise and assist the suspended operator. The two are implementing a cross-connection control program, and identifying un-metered connections to the system. Water quality samples – now correctly taken – show the water system is bacteria-free.

Improving the revenue picture for the 600-customer district is important. The commissioners are working with their new office manager to clear up the financial picture. They have instituted new rates and connection charges. Small Communities Initiative representatives from the Washington Department of Community, Trade and Economic Development are also working with the district on financing options for capital improvement.

There are several targeted distribution projects that will bring system pressure in problem areas up to regulatory standards, and will extend service to an area in Grayland that has failing wells with septic and seawater intrusion problems.

Staff at ODW's Southwest Regional Office continue to work with the water district as they finish their water system plan, and make capital improvements and other needed changes.

## *Katrina...* (Continued from Page 2)

inability to service debt, particularly in communities where customers have relocated and the system is inoperable. However, it does not include the costs of critical recovery activities such as pipe flushing and disinfection, interim operating needs such as power generation, and cleaning up contaminated source waters.

"While the preliminary cost estimate for replacing and repairing water infrastructure is significant, we expect the full cost of restoring water systems to pre-Hurricane Katrina status could be much higher," said Jack Hoffbuhr, AWWA executive director.

The report estimates that \$1.6 billion will be required for 47 water systems serving more than 10,000 people, with an additional \$650 million required in 885 smaller, primarily groundwater systems. The systems are all in Louisiana, Mississippi and Alabama.

A copy of the report may be found in the Hurricane Help Center section of AWWA's Web site at <http://awwa.org/advocacy/katrina/>

# Surface Water Filter Plant Optimization: Measurable Improvement

The Office of Drinking Water (ODW) launched the Treatment Optimization Program (TOP) five years ago to maximize public health protection from microbial contaminants found in surface water. Focusing on specific measures of particle removal and disinfection performance, TOP targets surface water treated by rapid-rate filtration, including direct, conventional and in-line filtration.

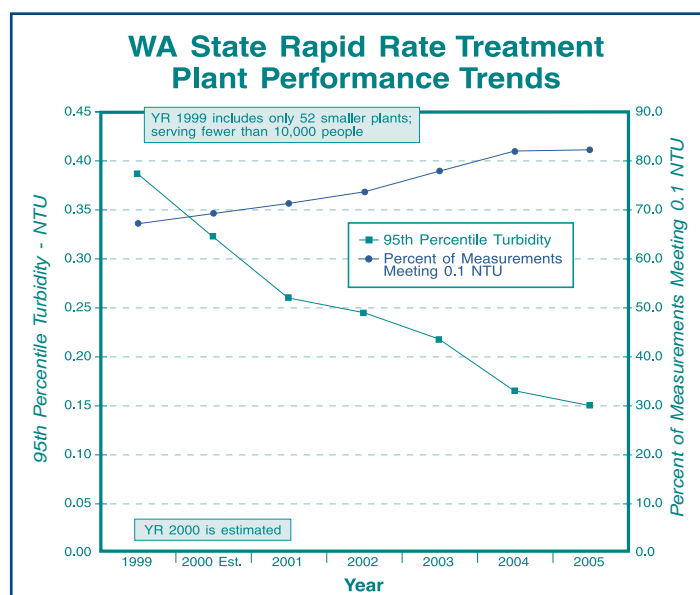
Two of the key particle-removal goals are:

- Filtered water turbidity less than 0.10 NTU (nephelometric turbidity units) 95 percent of the time, based on the maximum daily values recorded.
- Maximum filtered water turbidity 0.30 NTU or less.

All properly designed and diligently operated treatment plants can achieve these goals. The benefit to program participants is that TOP attempts to do so by helping operators develop knowledge and skills to maximize particle removal using existing facilities, before considering more expensive capital facility changes.

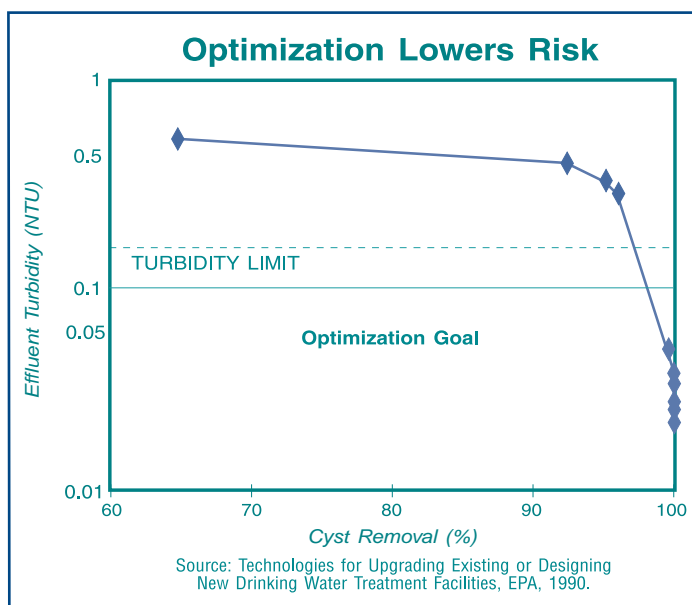
To date, ODW staff and contractors have evaluated more than 50 filter plants, provided more than 15 training sessions, and given hundreds of hours of technical assistance to willing recipients. And their efforts have paid off. Systems with rapid-rate filtration have achieved measurable improvement in particle removal (turbidity reduction).

Graph 1 Plant Performance Improvements



At present, 66 rapid-rate filters treat surface water in Washington. These systems, and their wholesale customers, provide drinking water for more than two million people, or about a third of Washington residents. Graph 1 shows improvements in meeting one of the turbidity goals through 2005. Data points on the graph represent the averages of all included rapid-rate treatment plants for the year. The 95th percentile turbidity average for all plants fell from 0.39 NTU in 1999 to 0.15 NTU in 2005, a decrease of more than 60 percent.

Graph 2 Effluent Turbidity vs. Cyst Removal



To see how lower turbidity equates to better public health protection, look at Graph 2. It shows that as filter effluent turbidity drops, a corresponding reduction in protozoan cysts occurs.

## Performance-Based Training

Recently, ODW staff started using performance-based training to help water systems pursue optimization goals. Performance-based training combines classroom sessions with hands-on training to help water treatment plant operators conduct optimization studies on their own plants.

Operators are required to share the results of their studies with other performance-based training participants. Several water systems in Southwest Washington have taken the opportunity to participate in this training. Their efforts will be summarized in a future issue of **Water Tap**.

## For more information

Visit the ODW Web site at [http://www.doh.wa.gov/ehp/dw/Programs/surface\\_water.htm](http://www.doh.wa.gov/ehp/dw/Programs/surface_water.htm)

To see water systems that met turbidity optimization goals in 2005, click on "Performance of Rapid Rate Filtration Plants in Washington" in the right column.

# Consumer Confidence Reports are due July 1

## Could this happen to you?

In March the U.S. Environmental Protection Agency (EPA) ordered seven Washington water systems to send their 2004 Consumer Confidence Reports (CCR) to customers or pay fines as high as \$32,500 per day. State and federal laws require all Group A community water systems to send CCRs to customers by July 1 each year. The reports inform consumers about the quality of their drinking water.

According to EPA officials, the following water systems failed to prepare, distribute, and certify 2004 CCRs, even after repeated attempts by state and federal officials to get them to comply:

- Anderson Creek Water Association, serving about 50 customers in Bellingham.
- Bill Point Water System, serving 203 in Bainbridge.
- Mount Forest Water System, serving 50 in Lake Stevens.
- Olympic Circle Water System, serving 55 in Silverdale.
- Victor Water Association, serving 43 in Bellingham.

"We're concerned about these violations because consumers have a right to know what is in their drinking water," said Marie Jennings, manager of the Drinking Water Program for EPA's Region 10, which includes Washington, Oregon, Alaska and Idaho. "Drinking water system owners are required to communicate how their system is operating. The reports provide valuable information to customers that allow them to make informed choices about their health and raise awareness of where their drinking water comes from."

A CCR must also describe any violations of the Safe Drinking Water Act that occurred during the year, and any steps the drinking water system is taking to address the violations.

Violation of any terms of the EPA orders may result in an administrative civil penalty of up to \$27,500, or a civil judicial penalty of not more than \$32,500 per day of violation. The systems can avoid these penalties by preparing, distributing, and certifying their 2004 CCR within 30 days after they receive the orders.



## Where to send your Consumer Confidence Report

**Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Kitsap, Lewis, Mason, Pacific, Skamania, Thurston, and Wahkiakum counties:**

Attn: Consumer Confidence Report  
Southwest Regional Office  
PO Box 47823  
Olympia, WA 98504-7823  
Phone: (360) 664-0768  
after June 26 (360) 236-3030  
Fax: (360) 664-8058

**Island, King, Pierce, San Juan, Skagit, Snohomish, and Whatcom counties:**

Attn: Consumer Confidence Report  
Northwest Regional Office  
20435 - 72nd Ave S Ste 200  
Kent, WA 98032  
Phone: (253) 395-6750  
Fax: (253) 395-6760

**Adams, Asotin, Benton, Chelan, Columbia, Douglas, Ferry, Franklin, Garfield, Grant, Kittitas, Klickitat, Lincoln, Okanogan, Pend Oreille, Spokane, Stevens, Walla Walla, Whitman, and Yakima counties:**

Attn: Consumer Confidence Report  
Eastern Regional Office  
1500 W 4th Ave Ste 305  
Spokane, WA 99204  
Phone: (509) 456-3115  
Fax: (509) 456-2997

### Need help?

Call one of the numbers listed above, or visit the Web site at [http://www.doh.wa.gov/ehp/dw/our\\_main\\_pages/consumer.htm](http://www.doh.wa.gov/ehp/dw/our_main_pages/consumer.htm)

# Best Tasting Water in the State



**Best unchlorinated water.**  
The owners of Forestview Senior 55+ Community, Moe and Eileen Levy, have state bragging rights for the year.

This past February, Evergreen Rural Water of Washington (ERWoW) held their 5th Annual Drinking Water Taste Test. Systems from across the state competed in the contest by bringing a quart jar of drinking water from their source to the ERWoW Annual Conference at the Yakima Convention Center.

A panel of three judges sampled water from 24 water systems. The samples are divided into two categories: chlorinated and unchlorinated water. The winner of the chlorinated category was the City of Port Orchard, and the winner of the unchlorinated category was Forestview Senior 55+ Community, just outside of McCleary.

Each year Evergreen Rural Water of Washington takes water from the winner of the unchlorinated division back to compete at the national level in National Rural Water’s Great American Water Taste Test in Washington, D.C. The national competition takes place at the National Rural Water Rally every April.

This year ERWoW took more than water to D.C. They took the owner’s of Forestview Senior 55+ Community, Moe and Eileen Levy. Although Moe and Eileen didn’t bring home national honors, they still have state bragging rights for the year.

## In This Issue

The following people contributed to the production of this issue of *Water Tap*: John Aden, Peggy Barton, Sara Brallier, Sandy Brentlinger, Chris Gagnon, Tracey Hunter, Jennifer Kropack, Denise Lahmann, Donna Lynch, Ethan Moseng, Theresa Patrick, Sam Perry, Jim Rioux, Gary Rhoades, George Schlender, Paula Smith, Amy Swecker, Leslie Thorpe, Scott Torpie, Linda Waring (editor).

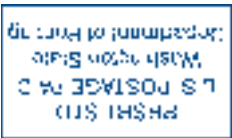
The Department of Health Office of Drinking Water publishes *Water Tap* quarterly to provide information to water system owners, water works operators and others interested in drinking water.

Mary Selecky, Secretary of Health

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Comments, questions, story ideas, articles and photographs submitted for publication are welcome. Please address correspondence to Linda Waring, *Water Tap*, Office of Drinking Water, P.O. Box 47822, Olympia, WA 98504-7822, or e-mail [linda.waring@doh.wa.gov](mailto:linda.waring@doh.wa.gov). Past issues are available by contacting the editor or visiting the Web site at [http://www.doh.wa.gov/ehp/dw/our\\_main\\_pages/watertap.htm](http://www.doh.wa.gov/ehp/dw/our_main_pages/watertap.htm)



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PO Box 47822  
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**BEAT THE RUSH!**  
More than 1,500 operators have not met their 2006 professional growth requirement. Many operators must satisfy the requirement by Dec. 31 or lose their certification. See page 11 for details.  
Take advantage of training (pages 12-13), attend a Drinking Water Seminar (page 16), or try a distance learning course (page 10).

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